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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/915,736	07/26/2001	Rashid A. Attar	010032B1	1213

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Qualcomm Incorporated
Patents Department
5775 Morehouse Drive
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EXAMINER

LY, NGHI H

ART UNIT PAPER NUMBER

2686

DATE MAILED: 07/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/915,736

Applicant(s)

ATTAR ET AL.

Examiner

Nghi H. Ly

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-98 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-41, 51-55, 65-75 and 85-89 is/are rejected.
- 7) ☒ Claim(s) 42-50, 56-64, 76-84 and 90-98 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4.5</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130 (b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-31 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-45 of copending Application No. 09/892,278. Although the conflicting claims are not identical,

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they are not patentably distinct from each other because they are same scope, limitation and meaning.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Regarding claims 1, 16 and 31, A method for directing communication between a subscriber station and a plurality of sectors in a data communication system, the remote station including a list of eligible sectors, the method comprising: determining at the remote station a quality metric of a forward link for each sector in the remote station's list; determining a quality metric of a reverse link to each sector in the remote station's list; and directing communication between the remote station and one sector from the sectors in the remote station's list in accordance with said determined quality metric of a forward link and said determined quality metric of a reverse link (see claim 1 of copending Application No. 09/892,278).

3. Claims 32-41, 51-55, 65-75, 85-89 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-45 of copending Application No. 09/892,278 in view of Kalofonos et al (US 6,512,933).

This is a provisional obviousness-type double patenting rejection.

Regarding claim 32, 51, 65, 66 and 85, the copending Application No. 09/892,278 teaches an apparatus for directing communication between a subscriber station (see claim 1) and a plurality of sectors in a data communication system (see

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claim 1), comprising: a processor to determine at the subscriber station a forward link quality metric for each sector in the subscriber station's list (see claims 6 and 7), and direct communication between the subscriber station and one sector from the sectors in the subscriber station's list in accordance with said determined forward links quality metrics (see claim 1).

The copending Application No. 09/892,278 does not specifically disclose a storage medium coupled to the processor and containing a set of instructions executable by the processor, determine a forward link de-rating value for at least one sector in the subscriber station's list, and said at least one determined forward link de-rating value.

Kalofonos teaches a storage medium coupled to the processor and containing a set of instructions executable by the processor (see column 3, lines 30-44), determine a forward link de-rating value for at least one sector in the subscriber station's list (see column 4, lines 35-54), and direct communication between the subscriber station and said at least one determined forward link de-rating value (see column 4, lines 55-62).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Kalofonos into the system of the copending Application No. 09/892,278 in order to provide a mechanism that provides optimized traffic load distribution in a wireless network (see Kalofonos, page 2, lines 44-48).

Regarding claims 33 and 67, the combination of the copending Application No. 09/892,278 and Kalofonos further teaches the data communication system comprises a

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wireless data communication system (see Kalofonos, Abstract, "wireless device").

Regarding claims 34-36 and 68-70, the copending Application No. 09/892,278 further teaches determining at the subscriber station a quality metric of a forward link for each sector in the subscriber station's list comprises measuring a signal-to-noise-and-interference-ratio of the forward link (see claim 3 of the copending Application No. 09/892,278).

Regarding claims 37 and 71, the combination of the copending Application No. 09/892,278 and Kalofonos further teaches determining a forward link de-rating value of at least one sector in the subscriber station's list comprises: ascertaining at the subscriber station a first signal value at a position in a first channel of the forward link for the at least one sector in the subscriber station's list (see Kalofonos, column 4, lines 36-54), processing at the subscriber station said ascertained first signal value for the at least one sector in the subscriber station's list; and determining at the subscriber station the forward link de-rating value in accordance with said processed first signal value for the at least one sector in the subscriber station's list (see Kalofonos, column 4, lines 55-62).

Regarding claims 38 and 72, the copending Application No. 09/892,278 further teaches ascertaining at the subscriber station a first signal value at a position in a first channel of the forward link for the at least one sector in the subscriber station's list comprises ascertaining at the subscriber station a reverse power control bit at a reverse power control channel of the forward link for the at least one sector in the subscriber station's list (see claim 10 of the copending Application No. 09/892,278).

Regarding claims 39 and 73, the copending Application No. 09/892,278 further teaches processing at the subscriber station said ascertained first signal value for the at least one sector in the subscriber station's list comprises filtering said ascertained signal value by a filter with a pre-determined time constant (see claim 10 of the copending Application No. 09/892,278).

Regarding claims 40, 41, 74 and 75, the combination of the copending Application No. 09/892,278 and Kalofonos further teaches determining at the subscriber station the forward link de-rating value in accordance with said processed first signal value for each sector in the subscriber station's list comprises determining at the subscriber station the forward link de-rating value in accordance with a pre-determined relationship between said processed first signal value and the forward link de-rating value (see Kalofonos, column 4, lines 36-62).

Regarding claims 52 and 86, the copending Application No. 09/892,278 further teaches determining a second reverse link quality metric of a current serving sector in the subscriber station's list comprises: ascertaining a second signal value in a second channel of the forward link of the current serving sector in the subscriber station's list; and determining the second reverse link quality metric in accordance with said ascertained second signal value for the current serving sector in the subscriber station's list (see claim 10 of the copending Application No. 09/892,278).

Regarding claims 53 and 87, the copending Application No. 09/892,278 further teaches ascertaining a second signal value in a second channel of the forward link of the current serving sector in the subscriber station's list comprises ascertaining a DRC

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lock bit in a DRC channel of the forward link for the current serving sector in the subscriber station's list (see claim 11 of the copending Application No. 09/892,278).

Regarding claims 54, 55, 88 and 89, the copending Application No. 09/892,278 further teaches measuring at each sector a reverse link quality metric; processing the reverse link quality metric to provide an indicator, and providing the indicator on a forward link (see claim 11 of the copending Application No. 09/892,278).

Allowable Subject Matter

4. Claims 42-50, 56-64, 76-84 and 90-98 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 42, 56, 76 and 90, the copending Application No. 09/892,278 further teaches directing communication between the subscriber station and one sector from the sectors in the subscriber station's list in accordance with said determined forward links quality metrics (see claim 1 of the copending Application No. 09/892,278).

Kalofonos teaches directing communication between the subscriber station and one sector from the sectors in the subscriber station's list in accordance with said determined forward links quality metrics and said determined forward link de-rating value (see column 4, lines 35-54) comprises: de-rating said determined forward link quality metric in accordance with said determined forward link de-rating value (see column 4, lines 55-62).

The copending Application No. 09/892,278 and Kalofonos, alone or in combination, fails to teach assigning credits to each sector in the subscriber station's list except the sector currently serving the subscriber station in accordance with said de-rated forward link quality metric and directing communication between the subscriber station and one sector from the sectors in the subscriber station's list in accordance with said assigned credits.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Rohani (US 5,999,522) teaches method and apparatus for determining hand-off candidates in a communication system.

b. Feuerstein (US 6,070,090) teaches input specific independent sector mapping.

c. Chheda (US 5,960,349) teaches enhanced cellular layout for CDMA network having six-sectored cells.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nghi H. Ly whose telephone number is (703) 605-5164. The examiner can normally be reached on 8:30 am-5:30 pm Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on (703) 305-4379. The fax phone

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number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nghi H. Ly

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06/25/04


CHARLES APPIAH
PRIMARY EXAMINER